



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,077	03/14/2001	Takuya Ishida	108108	1463

25944 7590 09/09/2003

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

CASIANO, ANGEL L

ART UNIT	PAPER NUMBER
----------	--------------

2182

DATE MAILED: 09/09/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,077

Applicant(s)

ISHIDA ET AL.

Examiner

Angel L. Casiano

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: _____

Art Unit: 2182

DETAILED ACTION

1. The present Office action is in response to application filed 14 March 2001 as amended by Preliminary amendment.
2. Claims 1-23 are pending. Claims 18-23 have been examined as amended.

Priority

3. The present application claims priority date of 15 July 1999 under 35 U.S.C. 371, from International application PCT/JP00/04637.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 06 March 2003 was filed after the mailing date of the application on 14 March 2001. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 10-12, 14-15, 17-18, 20-21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Lawande et al. [US 6,219,697 B1].

Regarding claim 1, Lawande et al. teaches a data transfer control device (see Abstract; col. 4, line 7) for transferring data between nodes connected to a bus (see Abstract; col. 1, lines 1-4; col. 23, line 33). The cited prior art teaches identification information (see Abstract; col. 2, lines 34-42) for determining whether or not one received packet and the next received packet are received during different reset intervals (see Fig. 6A; col. 4, line 21). The reset interval is defined as the period between a reset that clears node topology information and the next reset (inherent, see col. 13, lines 5-13; col. 14, lines 53-55). The cited disclosure links each received packet with the generated identification information (see Abstract). Lawande et al. teaches writing the linked packet and identification information into a packet storage (see col. 23, lines 35-44).

Art Unit: 2182

Regarding claim 10, Lawande et al. teaches a data transfer control device for transferring data between a plurality of nodes connected to a bus (see Abstract). The cited disclosure includes read means for reading a packet from storage when a transmission start command has been issued (see col. 12, lines 56-58) as well as link means for transmitting read packet to each node (see col. 12, lines 61-63). Lawande et al. also teaches status storage, indicating that transmission has been halted (see “stopped”, col. 13, line 57) by the occurrence of a reset (see col. 12, lines 41-43, 46-50).

As for claim 11, the cited art exposes processing means for issuing the transmission start command (see col. 12, line 58; Fig. 6A). The processing means included in the reference cancels transmission processing that has already started (see col. 12, lines 56-57) without determining whether or not transmission has been completed when it has been determined from the status information that transmission of a packet has been halted by the occurrence of the reset (see “reset”, col. 12, line 39; Fig. 6A).

As for claim 12, the data transfer control device disclosed by Lawande et al. teaches a bus reset as defined by the IEEE 1394 standard (see Abstract; col. 12, lines 50-53; col. 25, lines 11-15).

As for claim 14, the data transfer control device disclosed by Lawande et al. teaches a bus reset as defined by the IEEE 1394 standard (see Abstract; col. 12, lines 50-53; col. 25, lines 11-15).

Art Unit: 2182

As for claim, 15, the data transfer control device disclosed by Lawande et al. includes data transfer according to the IEEE 1394 standard (see Abstract; col. 25, lines 20-21).

As for claim 17, the data transfer control device disclosed by Lawande et al. includes data transfer according to the IEEE 1394 standard (see Abstract; col. 25, lines 20-21).

As for claims 18 and 21, these constitute the electronic equipment including the data transfer control device as disclosed in claim 1. Claim 1 is rejected in the present Office action. Therefore, claims 18 and 21 are rejected under the same rationale.

As for claims 20 and 23, these constitute the electronic equipment including the data transfer control device as disclosed in claim 10. Claim 10 is rejected in the present Office action. Accordingly, claims 20 and 23 are rejected under the same basis.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2182

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lawande et al. [US 6,219,697 B1].

Regarding claim 3, Lawande et al. teaches storing packets (see col. 23, lines 35-36, 41) including control information area (inherent, see col. 23, lines 29-32) and data area (see col. 23, lines 51-54). The cited art also discloses identification information as part of the control information (see “identifier”, col. 23, lines 29-32). The cited reference does not specify the storage means (see “memory”) as randomly accessible. However, randomly accessible memory is well known in the art, since it retains its contents when power is turned off. Therefore, one of ordinary skill in the art would have been motivated to specify the cited storage means as randomly accessible, in order to obtain a memory which has the information permanently placed into it.

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lawande et al. [US 6,219,697 B1] in view of Robins [US 5,590,124].

Regarding claim 2, Lawande et al. teaches identification information (see col. 2, lines 34-42). Nonetheless, this information is not specified as a toggle bit that toggles from zero to one or from one to zero when one received packet and the next received packet are packets received within different reset intervals. It would have been obvious to one of ordinary skill in the art at the time of the invention that a toggle bit is a common status indicator. As it is well known in the art, a toggle is usually associated with software configurations. Accordingly, Robins teaches a toggle bit to indicate the status of a pin (see col. 34, lines 63-65). Therefore, it would have been

Art Unit: 2182

obvious to one of ordinary skill in the art to modify the disclosure by Lawande et al. by including a toggle bit in order to incorporate a well known indicator for the software application.

11. Claims 4-9, 13, 16, 19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawande et al. [US 6,219,697 B1] in view of Gehman et al. [US 6,304,553 B1].

Regarding claims 4 and 5, Lawande et al. teaches a data transfer control device (see Abstract; col. 4, line 7) for transferring data between nodes connected to a bus (see Abstract; col. 1, lines 1-4; col. 23, line 33). However, Lawande et al. does not teach a first pointer storage means for storing pointer information that specifies a boundary in the packet storage means. Nonetheless, the reference does teach identification for the packets received before the occurrence of a reset that clears node topology information and for packets received after the occurrence of the reset (inherent, see col. 2, lines 34-38). In addition, Gehman et al. teaches a data transfer control device where pointer information specifies a boundary in storage (see col. 5, lines 48-49). One of ordinary skill in the art would have been motivated to combine the cited references in order to obtain a data transfer control device applicable to the IEEE 1394 standard having a pointer as a reference (e.g. "start address") for a boundary.

As for claims 6 and 7, Lawande et al. teaches information for processed and unprocessed packets (see Abstract) as well as for received and not received packets. However, Lawande et al. does not teach a second or third pointer storage means for storing pointer information that specifies a boundary in the packet storage means. Nonetheless, Gehman et al. teaches a data transfer control

Art Unit: 2182

device where pointer information specifies a boundary in storage (see col. 5, lines 48-49). One of ordinary skill in the art would have been motivated to combine the cited references in order to obtain a data transfer control device applicable to the IEEE 1394 standard having a pointer as a reference for a boundary.

As for claim 8, Lawande et al. teaches storing packets (see col. 23, lines 35-36, 41) including control information area (inherent, see col. 23, lines 29-32) and data area (see col. 23, lines 51-54). The cited art also discloses identification information as part of the control information (see “identifier”, col. 23, lines 29-32). However, Lawande et al. does not teach a first pointer storage means for storing pointer information that specifies a boundary in the packet storage means, and which includes fourth and fifth pointer storage means. Nonetheless, the reference does teach identification for the packets received before the occurrence of a reset that clears node topology information and for packets received after the occurrence of the reset (inherent, see col. 2, lines 34-38). Gehman et al. teaches a data transfer control device where pointer information specifies a boundary in storage (see col. 5, lines 48-49). One of ordinary skill in the art would have been motivated to combine the cited references in order to obtain a data transfer control device applicable to the IEEE 1394 standard having a pointer as a reference (e.g. for “control information”) for a boundary.

As for claim 9, Lawande et al. teaches storing packets (see col. 23, lines 35-36, 41) including a data area (see col. 23, lines 51-54). The cited art also discloses identification information as part of the control information (see “identifier”, col. 23, lines 29-32). However, Lawande et al. does

Art Unit: 2182

not teach a fifth pointer storage means for storing pointer information that specifies a boundary in the first data area. Lawande et al. teaches identification for the packets received before the occurrence of a reset that clears node topology information and for packets received after the occurrence of the reset (inherent, see col. 2, lines 34-38). Accordingly, Gehman et al. teaches a data transfer control device where pointer information specifies a boundary in storage (see col. 5, lines 48-49). One of ordinary skill in the art would have been motivated to combine the cited references in order to obtain a data transfer control device applicable to the IEEE 1394 standard having a pointer as a reference for indicating a boundary.

As for claims 13 and 16, the cited references teach a bus reset and data transfer in accordance with the IEEE 1394 standard (see Lawande et al, "Abstract"; Gehman et al., col. 5, lines 25 and 39-50). One of ordinary skill in the art would have been motivated to combine the cited references in order to obtain a data transfer control device, applicable to the IEEE 1394 standard, and able to provide a reference (see "boundary") for the data processing by using a pointer.

As for claims 19 and 22, these are oriented to the electronic equipment including the data transfer control device, as disclosed in a previous claim (see claim 4). The previous claim is rejected in the present Office action under 35 U.S.C. 103(a). Accordingly, the present claims are being rejected under the same rationale.

Art Unit: 2182

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:


- Shima et al. [US 6,366,964 B1] teaches method and apparatus for dynamically enumerating objects representing devices within an IEEE 1394 serial bus networking.
- Deng [US 6,347,097 B1] discloses method and apparatus for buffering received data from a serial bus.
- Lo [US 5,559,801] teaches a sampling repeater implementing a data packet sampling schedule.
- Di Giulio et al. [US 5,499,374] discloses event-driven communication network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L. Casiano whose telephone number is 703-305-8301. The examiner can normally be reached on 8:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

alc


KIM HUYNH
PRIMARY EXAMINER
9/4/23